

Air Quality and Texas Ports

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Texas Air Quality Overview

- ◆ Texas has 4 areas that are in non-attainment for ozone
 - Houston/Galveston
 - Dallas/Fort Worth
 - Beaumont/Port Arthur
 - Dallas/Fort Worth
- ◆ The largest air quality improvement plan efforts to date have been in the Houston/Galveston and Dallas/Fort Worth areas
- ◆ Efforts have concentrated on reducing nitrogen oxide (NO_x) emissions

Houston/Galveston Ports

- ◆ There are 4 major ports in the Houston/Galveston non-attainment area
 - Port of Houston
 - Freeport
 - Galveston
 - Texas City
- ◆ Vessels at ports are estimated to contribute 39 tons per day NO_x to the emissions inventory in 2007, the attainment date for the Houston/Galveston non-attainment area.

Houston/Galveston Area Ports

- ◆ Vessel emissions are distributed between harbor vessels, tow boats, and ocean going vessels.
- ◆ Ocean going vessels make up about 70% of these emissions
- ◆ Tow Boats make up about 20% of the emissions
- ◆ Harbor vessels make up about 10% of the NOx emissions

Air Quality Issues Associated with Port Expansions in NAAs

- ◆ Both the Port of Houston and Texas City have plans for increasing capacity
- ◆ Clean Air Act has a provision called General Conformity which is required to be passed before expansion can move forward
- ◆ Port of Houston has made arguments that bringing in cargo through an expanded container facility is a way to ensure better air quality

Benefits of Tow Boat and Barges vs. Over the Road Trucks

- ◆ Goods brought into the Houston area on by Tow boats and barges are estimated to be 9.4 tons per day NOx
- ◆ Similar tonnage of goods brought to the Houston area by truck are estimated to be 15.6 tons per day NOx
- ◆ Conclusion: A savings of 6.2 tons per day NOx has been argued through use of tow boats and barges instead of over the road trucks

Other Air Quality Improvement Concepts

- ◆ Ports have looked into using Electric Dredges
- ◆ Ports in Texas have looked at various demonstration projects
 - Diesel emulsions
 - Diesel after treatment devices
 - Alternative fuels
 - Cleaner Vehicles and Engines
 - Hoteling emissions – fuel cells
- ◆ TNRCC has modeled ships as elevated point sources instead of the traditional mobile sources. Moves Nox emissions higher may be a more accurate reflection of actual ozone formation

How Can the State Help?

- ◆ The Texas Legislature recently passed Senate Bill 5, commonly called the Texas Emissions Reduction Program or TERP
- ◆ TERP is estimated to provide up to \$90 million in funding for diesel engine improvements*
- ◆ TERP can pay for the incremental cost of replacing existing diesel engines with cleaner diesel engines or alternatively fueled diesel engines

*There has been a lawsuit filed against about 2/3 of this funding

Where Can I Find Out More About TERP

- ◆ <http://www.tnrcc.state.tx.us/oprd/sips/terp.html>
- ◆ Who can I call?
- ◆ Bill Jordan (512) 239-2583
- ◆ Steve Dayton (512) 239-6824
- ◆ An RFP is open now, closes November 21
- ◆ Next RFP scheduled to open February 1, 2002